

REMARKS

Claims 1-7, 9, 10, 15, 16, 19, 20, 22, 24-30, 32, 33, 38, 39, 42, 43, 45, 47-53, 55, 56, 60-62, 65, 66, 68 and 100-117 are pending in the application, are rejected and are at issue.

Applicants' attorney would like to thank the Examiner for the courtesy extended during the recent telephone interview. Claims 1, 24 and 47 are amended herein to clarify the signal analysis/processing to more clearly overcome the reference.

Applicants traverse the rejection of the pending claims as anticipated or obvious over U.S. 6,067,401 (Abecassis).

Claims 1, 24, 47, 105, 111 and 117 are independent claims. The remainder of the claims depend from select ones of the independent claims.

Independent claims 1, 24, 47, 105, 111 and 117 (as well as various claims dependent on these independent claims) have been rejected under 35 USC 102(e) as anticipated by U.S. 6,067,401 (Abecassis).

(a) Claims 1, 24 and 47

The Examiner's rejection of these claims under 35 USC 102 is respectfully traversed. As pointed out at some length in our response of December 8, 2005, Abecassis does not disclose any automatic process for obtaining descriptors. The descriptors obtained and employed by Abecassis (sexuality/violence/profanity ratings etc.) are ones which no automatic analysis could possibly obtain. During the telephone interview of May 31, 2006, the examiner confirmed that there is a conceptual difference between automatic derivation of descriptors and

the manual derivation of Abecassis, but expressed concerns that the claim language is not specific enough to ascertain the difference. The examiner proposed amending these claims to recite how the analysis is performed or how the descriptor values are derived.

Accordingly, applicants have amended independent claims 1, 24 and 47 to specify that the derivation of at least one descriptor value includes performing "one or more digital signal processing algorithms on visual data comprised in said input video signal". Claims 1 and 24 further recites that these algorithms are "implemented in computer hardware or software", while claim 47 requires that the algorithms are performed by "computer readable program code means". These claims define the system and/or method sufficiently unambiguously to provide novelty under 35 U.S.C. 102.

The nature of the digital signal processing algorithms within claims 1, 24 and 47 is more than sufficient to overcome any interpretation of Abecassis. As mentioned in the text of the application in the 3rd paragraph of p. 17: "The system is designed to exploit signal analysis descriptors to the fullest, but it is not limited to, or dependent upon, any specific signal processing algorithm." In other words, the invention is independent of any particular descriptor type or method of calculating a descriptor.

Turning to the obviousness rejection of various dependent claims under 35 USC 103, it cannot be said that Abecassis makes obvious any of independent claims 1, 24 and 47. One skilled in the art would not consider adapting Abecassis to incorporate automatically-derived descriptors because he would not know that the descriptors which can be derived from automatic digital signal processing would not work for the purpose of the Abecassis invention.

The Abecassis system aims to replace segments in linear productions with alternative but similar segments according to certain semantics (e.g., level of sexuality & violence), etc whereas the present invention as presently defined makes possible a system with a very different purpose: allowing bodies of video material to be completely re-organized, explored and experimented with. The former requires human tagging of the content (no computer can reliably determine the level of sexuality or violence), whereas the latter can be done using automatic descriptors by employing the techniques in the present invention.

(b) Claims 105, 111, 117

With respect to independent claims 105, 111 and 117 the examiner confirmed during the telephone interview of May 31, 2006, that his objection to these claims is essentially based on a concern about clarity, and requested applicant to clarify the meaning of “time-series descriptors” in the claims. Accordingly, claims 105, 111 and 117 have been amended with basis at the first paragraph of p. 13 to specify that the term “time series descriptors” is used to mean descriptors “in the form of time series data”. For consistency claims 102, 108 and 114 have been amended in the same way.

The phrase "time series data" is a very widely-used standard term. “Googling” the phrase "time series data" gives 2 million hits and the online encyclopedia “wikipedia” presently defines the term “Time Series” as follows: "In statistics and signal processing, a time series is a sequence of data points, measured typically at successive times, spaced apart at uniform time intervals".

As noted in our response of December 8, 2005, the descriptors of Abecassis are not "time-series descriptors" as required by claims 105, 111 and 117. Thus, referring to 35 U.S.C. 102, these claims are not anticipated by Abecassis. Furthermore, Abecassis does not make obvious the replacement of descriptors manually-generated to label pre-existing segments, with time-series descriptors which are subsequently used to derive segment boundary times, as required by all of claims 105, 111 and 117. Thus, for this reason alone, these claims are not rendered obvious by Abecassis. Further reasons for this are as set out in our response of December 8, 2005.

(c) Other claims subject to objection

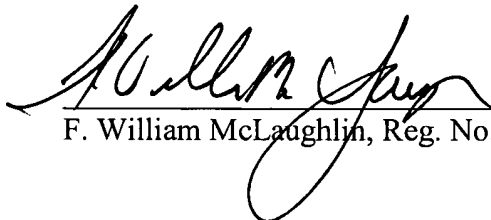
Since all the other claims subject to objection incorporate the features of one of the independent claims discussed above, the examiner's objections to these claims as anticipated or obvious are respectfully traversed.

Reconsideration of the application and allowance and passage to issue are requested.

Respectfully submitted,

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